

Notice of Allowability

Application No.

10/634,678

Examiner

L. E. Crane

Applicant(s)

LEE ET AL.

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendments of 10/18 and 11/10/2004.
2. ☒ The allowed claim(s) is/are 1,77 and 79-99.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ Including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 11/18/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

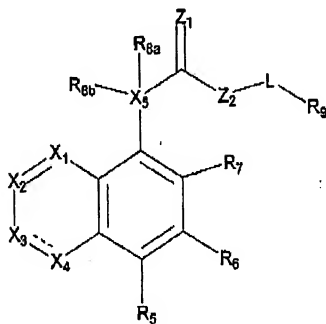
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 01042005
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

James O. Wilson
Supervisory Patent Examiner
Technology Center 1600

An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. §1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

Claim 1 was replaced with the following:

-- 1. A compound of formula (I)



(I),

of a pharmaceutically acceptable salt or prodrug thereof, wherein

--- is absent or is a single bond;

X₁ is CR₁;

X₂ is selected from the group consisting of N and NR₂;

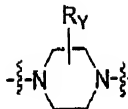
X₃ is selected from the group consisting of N and NR₃;

X₄ is a bond;

X₅ is N;

Z₁ is O;

L is selected from the group consisting of alkenylene, alkylene,



alkynylene, cycloalkylene, $-(CH_2)_mO(CH_2)_n-$, and $N(R_Y)$, wherein the left end of $-(CH_2)_mO(CH_2)_n-$ is attached to Z_2 and the right end is attached to R_9 ;

m and n are each independently 1-6;

R_Y is selected from the group consisting of hydrogen and alkyl;

R_1 , R_3 , R_5 , R_6 , and R_7 are each independently selected from the group consisting of hydrogen, alkenyl, alkoxy, alkoxyalkyl, alkoxycarbonyl, alkoxycarbonylalkyl, alkyl, alkylcarbonyl, alkylcarbonylalkyl, alkylcarbonyloxy, carboxy, cyano, cyanoalkyl, cycloalkyl, cycloalkylalkyl, haloalkoxy, haloalkyl, haloalkylthio, halogen, hydroxy, hydroxyalkyl, $-S(O)_2OR_A$, $-S(O)_2RB$, $-NZ_AZ_B$, $(Z_AZ_BN)alkyl-$, $(Z_AZ_BN)carbonyl-$, $(Z_AZ_BN)carbonylalkyl-$, and $(Z_AZ_BN)sulfonyl-$, wherein Z_A and Z_B are each independently selected from the group consisting of hydrogen, alkyl, alkylcarbonyl, formyl, aryl, and arylalkyl;

R_2 is independently selected from the group consisting of hydrogen, alkenyl, alkoxy, alkoxyalkoxy, alkoxyalkyl, alkoxycarbonyl, alkoxycarbonylalkyl, alkyl, alkylcarbonyl, alkylcarbonylalkyl, alkylcarbonyloxy, carboxy, carboxyalkyl, cyano, cyanoalkyl, cycloalkyl, cycloalkylalkyl, haloalkoxy, haloalkyl, haloalkylthio, halogen, hydroxy, hydroxyalkyl, $-NR_AS(O)_2R_B$, $-S(O)_2OR_A$, $S(O)_2RB$, NZ_AZ_B , $(Z_AZ_BN)alkyl$, $(Z_AZ_BN)carbonyl$, $(Z_AZ_BN)carbonylalkyl$, and $(Z_AZ_BN)sulfonyl$;

R_A is selected from the group consisting of hydrogen and alkyl;

R_B is selected from the group consisting of alkyl, aryl, and arylalkyl;

R_{8a} is selected from the group consisting of hydrogen and alkyl;

R_{8b} is absent when X_5 is N; and

R_9 is selected from the group consisting of hydrogen, aryl, cycloalkyl, and heterocyclyl; with the proviso that variables X_2 and X_3 are not simultaneously NR_2 and NR_3 . --

In claim 77 following line 4, the term " X₃ is NR₃;" was added as a new line.

In claim 92 at line 9, the term "heterocycle" (both occurrences) was replaced in both locations with the term -- heterocyclyl --.

In claim 94 at the end of the claim, the following term was added:
-- , and a pharmaceutically acceptable carrier -- .

Authorization for this Examiner's Amendment was given in a telephone interview with
Ms. Gabryleda Ferrari-Deleo on January 4, 2005.

Papers related to this application may be submitted to Group 1600 via facsimile transmission (FAX). The transmission of such papers must conform with the notice published in the Official Gazette (1096 OG 30, November 15, 1989). The telephone number to FAX (unofficially) directly to Examiner's computer is 571-273-0651. The telephone number for sending an Official FAX to the PTO is 703-872-9306.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner L. E. Crane whose telephone number is **571-272-0651**. The examiner can normally be reached between 9:30 AM and 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. James O. Wilson, can be reached at **571-272-0661**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group 1600 receptionist whose telephone number is **571-272-1600**.

All Post-Allowance Correspondence concerning this application must be mailed to:

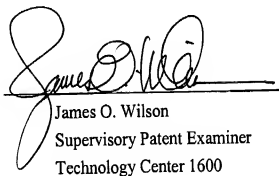
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WASHINGTON, DC 20231

OR you can FAX them to the Office of Patent Publications at 703-308-5083, in order to expedite the handling of such correspondence as amendments under 37 C.F.R. §1.312; Information Disclosure Statements (IDS's), and formal drawings. Sending Post-Allowance papers to Technology Center 1600 will only cause delays in matching papers with the case.

For information concerning status of correspondence sent after receipt of the Notice of Allowance, please contact the Correspondence Branch at **703-305-8027**. The Notice of Allowance also has an insert containing contact information for other items, including Issue Fees, receipt of formal drawings, and the status of the application.

LECrane:lec
01/04/2004



James O. Wilson
Supervisory Patent Examiner
Technology Center 1600